

CLAIMS

- 1 1. A method of monitoring a filter for absorbing paint particles produced
2 during spray painting with a spray gun in a paint spray booth coupled to an
3 exhaust pump, said method comprising the steps of:
4 installing a filter between the booth and exhaust pump;
5 determining the initial pressure drop across a filter prior to use of the
6 spray booth;
7 determining the maximum allowable pressure drop for the filter prior to
8 the requirement that spraying activities must be terminated by adding the initial
9 pressure drop of the filter to the maximum allowable increase in pressure drop
10 across the filter before the of spraying activities must be terminated;
11 providing a warning when a first portion of the maximum allowable
12 pressure drop is reached; and
13 preventing the use of the spray gun when a second portion, greater
14 than the first portion, of the maximum allowable pressure drop is reached.

- 1 2. The method as set forth in claim 1 wherein the spray gun is
2 pneumatically powered by pressurized air via a line having a solenoid valve
3 mounted therein for controlling the airflow there through coupled to the spray
4 gun, said step preventing the use of the spray gun when a second portion,
5 greater than the first portion, of the maximum allowable pressure drop is
6 reached includes the step of actuating the solenoid valve to the closed
7 position cutting off airflow to the spray gun.

- 1 3. The method as set forth in claim 2 wherein the pressure drop is
2 measured by means of first and second pressure sensors positioned on either
3 side of the filter.

1 4. The method as set forth in claim 3 wherein the first portion is 80 percent
2 of the maximum allowable pressure drop and the second portion is 90 percent
3 of the allowable pressure drop.

1 5. The method as set forth in claim 4 wherein the pressure transducers
2 are connected to a computer with a display terminal, the method including the
3 step of monitoring the pressure drop across the filter on the display terminal.

1 6. The method as set forth in claim 5 including the step of sending an
2 alarm signal to the computer and displaying the alarm signal on the display
3 terminal.